NOVEMBER/DECEMBER 2023

BEL53/CEL53 — ELECTRICAL AND ELECTRONIC INSTRUMENTATION

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are the characteristics composed in precision?

2. Expand PMMC.

3. What is the accuracy of kelvin double bridge?

4. Give the equation for max well from faraday's law.

5. How the power is consumed in A.C circuit?

6. What determines light intensity in CRT?

7. List out the properties of instrumentation amplifier.

8. What is meant by electronic multimeter?

9. How does a resistance thermometer work?

10. Which liquid material is used in LCD?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a note on Gross errors.

Or

(b) Explain he function of multimeter.

12. (a) Describe the limiting errors of known resistors.

Or

(b) Give an account on weir bridge.

13. (a) Write a note Electrostatic focusing.

Or

(b) Explain how the frequency waveform is measured.

14. (a) Describe the working of instrument amplifier.

Or

(b) Detailed about the function of Electronic voltmeter.

15. (a) Explain the sensitivity of straingage in passive transducer.

Or

(b) Elaborate the working of pen recorders.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Elaborate the function of Electrostatic voltmeter.

17. Describe the operation of Hay bridge.

18. Illustrate the various block functions in oscillascope.

19. Explain the basic elements of a function generator.

20. Discuss the construction of LVDT.

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